



9

SEQUENCE LISTING

<110> Nippon Zeon Co., Ltd.,
<120> Modified DNA molecules, Recombinants and uses thereof
<130> J209

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<212> DNA

<213> Mycoplasma gallisepticum
<223> TTM-1 gene

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<213> Mycoplasma gallisepticum
<223> mgc3 gene

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<212> PRT

<213> *Mycoplasma gallisepticum*

<223> TTM-1 portion of pNZ40K-S

<400> 12

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20

25

30

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Leu Glu Ala Ala Arg Met Glu Leu Thr Asp Leu Ile Asn Ala Lys Ala
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Ser Ser Ala Tyr Ser Glu Ala Glu Thr Val Asn Asn Asn Leu Asn Ala
115 120 125
Thr Leu Glu Gln Leu Lys Met Ala Lys Thr Asn Leu Glu Ser Ala Ile
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Asn Gln Ala Asn Thr Asp Thr Phe Asp Asn Glu His Pro Asn
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180 185 190
Asn Leu Val Asp Leu Tyr Asn Lys Ala Ser Ser Leu Ile Thr Lys Thr
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Lys Thr Asn Ala Asp Ala Leu Ser Asn Ser Phe Ile Lys Lys Val Ile
245 250 255
Gln Asn Asn Glu Gln Ser Phe Val Gly Thr Phe Thr Asn Ala Asn Val
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Gln Pro Ser Asn Tyr Ser Phe Val Ala Phe Ser Ala Asp Val Thr Pro
275 280 285
Val Asn Tyr Lys Tyr Ala Arg Arg Thr Val Trp Asn Gly Asp Glu Pro
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Ser Ser Arg Ile Leu Ala Asn Thr Asn Ser Ile Thr Asp Val Ser Trp
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Ile Tyr Ser Leu Ala Gly Thr Asn Thr Lys Tyr Gln Phe Ser Phe Ser
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Asn Tyr Gly Pro Ser Thr Gly Tyr Leu Tyr Phe Pro Tyr Lys Leu Val
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Val Pro Thr Gly Glu Gly Asn Met Asn Lys Val Ala Pro Met Ile Gly
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<212> PRT

<213> *Mycoplasma gallisepticum*

<223> MGC3 encoded by mgc3 gene

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50 55 60
Phe Asn Thr Val Leu Arg Asp Val Asp Asn Phe Ile Thr Ala Ala
65 70 75 80
Asn Gly Thr Ile Ile Lys Leu Asp Ser Phe Thr Lys Pro Leu Tyr Gly
85 90 95
Leu Asp Leu Ser Asp Asp Cys Gly Gly Tyr Lys Val Lys Gln Ile Val
100 105 110
Ser Asp Tyr Thr Thr Ser Arg Asn Arg Phe Asp Gln Arg Gln Thr Arg
115 120 125
Ala Tyr Tyr Ala Leu Leu Val Asn Asp Glu Ala Asn Val His Leu Lys
130 135 140
Arg Ile Asn Thr Asn Ser Asn Arg Ile Gly Asn Arg Asn Asn Ser
145 150 155 160
Lys Phe Val Ile Gly Gly Val Asp Asn Pro Ala His Val Ile Arg Phe
165 170 175
Thr Asp Asp Gly Thr Lys Phe Asn Phe Thr Asn Gln Thr Gln Gly Glu
180 185 190
Ile Val Asn Asp Phe Ile Leu Asp Ala Pro Ile Leu Pro Lys Asp Leu
195 200 205
His Pro Asp Trp Tyr Asn Leu Tyr Ile Gln Arg Lys Ile Leu Pro Asn
210 215 220
Asp Val Asn Thr Ala Val Val Pro Trp Pro Val Gly Arg Val Ser Gly
225 230 235 240
Thr Asn Ala Asp Asp Gly Met Phe Asp Cys Gly Asn Gly Gln Ile Thr
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260 265 270
Pro Ser Thr Phe Asn Ser Gly Ala Met Pro Gly Ala Asn Asn Arg Tyr
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Asp Glu Arg Ile Asn Thr Asn Ser Asn Arg Ile Gly Asn Arg Asn Asn
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Pro Asn Asp Val Asn Thr Ala Val Val Pro Trp Pro Val Gly Arg Val
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Glu Asp Ser Val Asn Val Phe Ser Arg Leu Tyr Leu Asn Ser Val Asn
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Pro Lys Pro Thr Ala Pro Lys Glu
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